

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/520,126

Source: PT

Date Processed by STIC: 3/13/06

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

```

3 <110> APPLICANT: Sode, Koji
5 <120> TITLE OF INVENTION: Glucose Dehydrogenase
7 <130> FILE REFERENCE: 3691-0114PUS1
9 <140> CURRENT APPLICATION NUMBER: US 10/520,126
10 <141> CURRENT FILING DATE: 2005-01-03
12 <150> PRIOR APPLICATION NUMBER: PCT/JP03/08418
13 <151> PRIOR FILING DATE: 2002-07-02
15 <150> PRIOR APPLICATION NUMBER: JP 2003-71760
16 <151> PRIOR FILING DATE: 2003-03-17
18 <150> PRIOR APPLICATION NUMBER: JP 2002-196177
19 <151> PRIOR FILING DATE: 2002-07-04
21 <160> NUMBER OF SEQ ID NOS: 19
23 <170> SOFTWARE: PatentIn version 3.3
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 454
27 <212> TYPE: PRT
28 <213> ORGANISM: Acinetobacter calcoaceticus
30 <400> SEQUENCE: 1
31 Asp Val Pro Leu Thr Pro Ser Gln Phe Ala Lys Ala Lys Ser Glu Asn
32 1 5 10 15
33 Phe Asp Lys Lys Val Ile Leu Ser Asn Leu Asn Lys Pro His Ala Leu
34 20 25 30
35 Leu Trp Gly Pro Asp Asn Gln Ile Trp Leu Thr Glu Arg Ala Thr Gly
36 35 40 45
37 Lys Ile Leu Arg Val Asn Pro Glu Ser Gly Ser Val Lys Thr Val Phe
38 50 55 60
39 Gln Val Pro Glu Ile Val Asn Asp Ala Asp Gly Gln Asn Gly Leu Leu
40 65 70 75 80
41 Gly Phe Ala Phe His Pro Asp Phe Lys Asn Asn Pro Tyr Ile Tyr Ile
42 85 90 95
43 Ser Gly Thr Phe Lys Asn Pro Lys Ser Thr Asp Lys Glu Leu Pro Asn
44 100 105 110
45 Gln Thr Ile Ile Arg Arg Tyr Thr Tyr Asn Lys Ser Thr Asp Thr Leu
46 115 120 125
47 Glu Lys Pro Val Asp Leu Leu Ala Gly Leu Pro Ser Ser Lys Asp His
48 130 135 140
49 Gln Ser Gly Arg Leu Val Ile Gly Pro Asp Gln Lys Ile Tyr Tyr Thr
50 145 150 155 160
51 Ile Gly Asp Gln Gly Arg Asn Gln Leu Ala Tyr Leu Phe Leu Pro Asn
52 165 170 175
53 Gln Ala Gln His Thr Pro Thr Gln Gln Glu Leu Asn Gly Lys Asp Tyr
54 180 185 190
55 His Thr Tyr Met Gly Lys Val Leu Arg Leu Asn Leu Asp Gly Ser Ile

```

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

```

56          195          200          205
57 Pro Lys Asp Asn Pro Ser Phe Asn Gly Val Val Ser His Ile Tyr Thr
58          210          215          220
59 Leu Gly His Arg Asn Pro Gln Gly Leu Ala Phe Thr Pro Asn Gly Lys
60 225          230          235          240
61 Leu Leu Gln Ser Glu Gln Gly Pro Asn Ser Asp Asp Glu Ile Asn Leu
62          245          250          255
63 Ile Val Lys Gly Gly Asn Tyr Gly Trp Pro Asn Val Ala Gly Tyr Lys
64          260          265          270
65 Asp Asp Ser Gly Tyr Ala Tyr Ala Asn Tyr Ser Ala Ala Asn Lys
66          275          280          285
67 Ser Ile Lys Asp Leu Ala Gln Asn Gly Val Lys Val Ala Ala Gly Val
68          290          295          300
69 Pro Val Thr Lys Glu Ser Glu Trp Thr Gly Lys Asn Phe Val Pro Pro
70 305          310          315          320
71 Leu Lys Thr Leu Tyr Thr Val Gln Asp Thr Tyr Asn Tyr Asn Asp Pro
72          325          330          335
73 Thr Cys Gly Glu Met Thr Tyr Ile Cys Trp Pro Thr Val Ala Pro Ser
74          340          345          350
75 Ser Ala Tyr Val Tyr Lys Gly Gly Lys Lys Ala Ile Thr Gly Trp Glu
76          355          360          365
77 Asn Thr Leu Leu Val Pro Ser Leu Lys Arg Gly Val Ile Phe Arg Ile
78          370          375          380
79 Lys Leu Asp Pro Thr Tyr Ser Thr Thr Tyr Asp Asp Ala Val Pro Met
80 385          390          395          400
81 Phe Lys Ser Asn Asn Arg Tyr Arg Asp Val Ile Ala Ser Pro Asp Gly
82          405          410          415
83 Asn Val Leu Tyr Val Leu Thr Asp Thr Ala Gly Asn Val Gln Lys Asp
84          420          425          430
85 Asp Gly Ser Val Thr Asn Thr Leu Glu Asn Pro Gly Ser Leu Ile Lys
86          435          440          445
87 Phe Thr Tyr Lys Ala Lys
88          450

```

91 <210> SEQ ID NO: 2

92 <211> LENGTH: 1612

93 <212> TYPE: DNA

94 <213> ORGANISM: Acinetobacter calcoaceticus

96 <400> SEQUENCE: 2

```

97 agctactttt atgcaacaga gcctttcaga aatttagatt ttaatagatt cgttattcat 60
98 cataatacaa atcatataga gaactcgtac aaacccttta ttagagggtt aaaaattctc 120
99 ggaaaatttt gacaatttat aaggtggaca catgaataaa catttattgg ctaaaattgc 180
100 tttattaagc gctgttcagc tagttacact ctcagcattt gctgatgttc ctctaactcc 240
101 atctcaattt gctaaagcga aatcagagaa ctttgacaag aaagttattc tatctaattc 300
102 aaataagccg catgctttgt tatggggacc agataatcaa atttgggtta ctgagcgagc 360
103 aacaggtaag attctaagag ttaatccaga gtcgggtagt gtaaaaacag tttttcaggt 420
104 accagagatt gtcaatgatg ctgatgggca gaatgggtta ttaggttttg ccttccatcc 480
105 tgatttttaa aataatcctt atatctatat ttcaggtaca tttaaaaatc cgaaatctac 540
106 agataaagaa ttaccgaacc aaacgattat tcgtcgttat acctataata aatcaacaga 600
107 tacgctcgag aagccagtcg atttattagc aggattacct tcatcaaaag accatcagtc 660

```

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

```

108 aggtcgtctt gtcattgggc cagatcaaaa gatttattat acgattgggtg accaagggcg 720
109 taaccagctt gcttattigt tcttgccaaa tcaagcacia catacgccaa ctcaacaaga 780
110 actgaatggg aaagactatc acacctatat gggtaaagta ctacgcttaa atcttgatgg 840
111 aagtattcca aaggataatc caagttttta cgggggtggtt agccatattt atacacttgg 900
112 acatcgtaat ccgcagggct tagcattcac tccaaatggg aaattattgc agtctgaaca 960
113 aggcccaaac tctgacgatg aaattaacct cattgtcaaa ggtggcaatt atgggtggcc 1020
114 gaatgtagca gggtataaag atgatagtgg ctatgcttat gcaaattatt cagcagcagc 1080
115 caataagtca attaaggatt tagctcaaaa tggagtaaaa gtagccgcag ggggtccctgt 1140
116 gacgaaagaa tctgaatgga ctggtaaaaa ctttgtccca ccattaaaaa ctttatatac 1200
117 cggtcaagat acctacaact ataacgatcc aacttgtgga gagatgacct acatttgctg 1260
118 gccaacagtt gcaccgtcat ctgcctatgt ctataagggc ggtaaaaaag caattactgg 1320
119 ttgggaaaat acattattgg ttccatcttt aaaacgtggg gtcattttcc gtattaagtt 1380
120 agatccaact tatagcacta cttatgatga cgctgtaccg atgtttaaga gcaacaaccg 1440
121 ttatcgtgat gtgattgcaa gtccagatgg gaatgtctta tatgtattaa ctgatactgc 1500
122 cggaaatgtc caaaaagatg atggctcagt aacaaataca ttagaaaacc caggatctct 1560
123 cattaagtgc acctataagg ctaagtaata cagtcgcatt aaaaaaccga tc 1612

```

126 <210> SEQ ID NO: 3

127 <211> LENGTH: 8

128 <212> TYPE: PRT

129 <213> ORGANISM: Acinetobacter calcoaceticus

131 <220> FEATURE:

132 <221> NAME/KEY: misc_feature

133 <222> LOCATION: (4)..(5)

134 <223> OTHER INFORMATION: Xaa can be any amino acid provided that when Xaa at pos. 4 is Gln, then

135 Xaa at pos. 5 is not Leu

137 <400> SEQUENCE: 3

W--> 138 Gly Arg Asn Xaa Xaa Ala Tyr Leu

139 1 5

142 <210> SEQ ID NO: 4

143 <211> LENGTH: 21

144 <212> TYPE: DNA

145 <213> ORGANISM: Artificial Sequence

147 <220> FEATURE:

148 <223> OTHER INFORMATION: synthetic primer for point mutation

150 <400> SEQUENCE: 4

151 ataagcaagc gggttacgcc c 21

154 <210> SEQ ID NO: 5

155 <211> LENGTH: 27

156 <212> TYPE: DNA

157 <213> ORGANISM: Artificial Sequence

159 <220> FEATURE:

160 <223> OTHER INFORMATION: synthetic primer for point mutation

162 <400> SEQUENCE: 5

163 caaataagca agcccggttac gcccttg 27

166 <210> SEQ ID NO: 6

167 <211> LENGTH: 21

168 <212> TYPE: DNA

169 <213> ORGANISM: Artificial Sequence

171 <220> FEATURE:

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

172 <223> OTHER INFORMATION: synthetic primer for point mutation
174 <400> SEQUENCE: 6
175 caaataagca gcctgggttac g 21
178 <210> SEQ ID NO: 7
179 <211> LENGTH: 27
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: synthetic primer for point mutation
186 <400> SEQUENCE: 7
187 gaacaaataa gcaccctggt tacgccc 27
190 <210> SEQ ID NO: 8
191 <211> LENGTH: 26
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: synthetic primer for point mutation
198 <400> SEQUENCE: 8
199 cctgactgat gttcttttga tgaagg 26
202 <210> SEQ ID NO: 9
203 <211> LENGTH: 27
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: synthetic primer for point mutation
210 <400> SEQUENCE: 9
211 catctttttg gacagttccg gcagtat 27
214 <210> SEQ ID NO: 10
215 <211> LENGTH: 27
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: synthetic primer for point mutation
222 <400> SEQUENCE: 10
223 caaataagca agcaggttac gcccttg 27
226 <210> SEQ ID NO: 11
227 <211> LENGTH: 27
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: synthetic primer for point mutation
234 <400> SEQUENCE: 11
235 caaataagca agaaagttac gcccttg 27
238 <210> SEQ ID NO: 12
239 <211> LENGTH: 27
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: synthetic primer for point mutation

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

246 <400> SEQUENCE: 12
247 caaataagca aggctgttac gcccttg 27
250 <210> SEQ ID NO: 13
251 <211> LENGTH: 27
252 <212> TYPE: DNA
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: synthetic primer for point mutation
258 <400> SEQUENCE: 13
259 caaataagca aggttggttac gcccttg 27
262 <210> SEQ ID NO: 14
263 <211> LENGTH: 27
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: synthetic primer for point mutation
270 <400> SEQUENCE: 14
271 caaataagca agatcggttac gcccttg 27
274 <210> SEQ ID NO: 15
275 <211> LENGTH: 27
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: synthetic primer for point mutation
282 <400> SEQUENCE: 15
283 caaataagca agttcggttac gcccttg 27
286 <210> SEQ ID NO: 16
287 <211> LENGTH: 27
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: synthetic primer for point mutation
294 <400> SEQUENCE: 16
295 caaataagca agtttggttac gcccttg 27
298 <210> SEQ ID NO: 17
299 <211> LENGTH: 27
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: synthetic primer for point mutation
306 <400> SEQUENCE: 17
307 gaacaaataa gccatctggt tacgccc 27
310 <210> SEQ ID NO: 18
311 <211> LENGTH: 27
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: synthetic primer for point mutation
318 <400> SEQUENCE: 18

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/13/2006
PATENT APPLICATION: US/10/520,126 TIME: 12:12:24

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt
Output Set: N:\CRF4\03132006\J520126.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 4,5

VERIFICATION SUMMARY

DATE: 03/13/2006

PATENT APPLICATION: US/10/520,126

TIME: 12:12:24

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt

Output Set: N:\CRF4\03132006\J520126.raw

L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0